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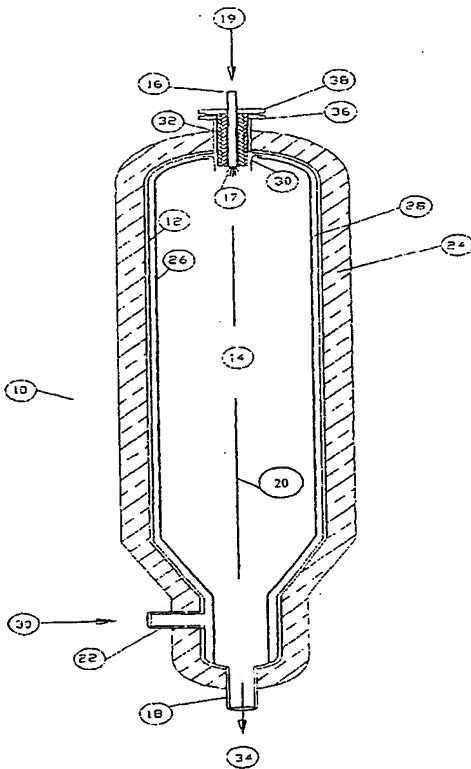
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[Continued on next page]

(54) Title: CONDENSATION REDUCTION IN FLUID MIXING

(57) Abstract: Method and apparatus are disclosed for mixing fluid streams of different compositions (19) (22) to minimize fluid condensation inside a mixing vessel (10) where the objective is to produce an all-vapor mixture product (34).



WO 2004/004877 A1



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
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GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

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**Published:**

- with international search report
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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/21007

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : B01F 3/04; C10J 1/00

US CL : 422/224, 227, 228; 261/16, 75, 115

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 422/224, 227, 228; 261/16, 75, 115

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
noneElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,344,479 A (BAILEY) 17 August 1982 (17.08.1982), figure 9.	1-20
A	US 5,739,071 A (CHEN et al) 15 April 1998 (15.04.1998).	
A	US 5,695,724 A (CHEN et al) 09 December 1997 (.09.12.1997).	
A	US 5,686,369 A (CHEN et al) 11 November 1997 (11.11.1997).	
A	US 5,461,179 A (CHEN et al) 24 October 1995 (24.10.1995)	

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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**INTERNATIONAL SEARCH REPORT**

PCT/US03/21007

**Continuation of B. FIELDS SEARCHED Item 3:**

**EAST**

search terms: vapor, baffle, fluid, injection